ACCESS DB # 178917

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: MARK BERCH Examiner #: 59193 Date: 2/6/06

Art Unit: 1624 Phone Number: 2- 0663 Serial Number: 10801443 (CL)

Location (Bldg/Room#): 5C01 (Mailbox #): 5C18 Results Format Preferred (circle): (PAPER) DISK

****

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: _____

Inventors (please provide full names): _____

_____

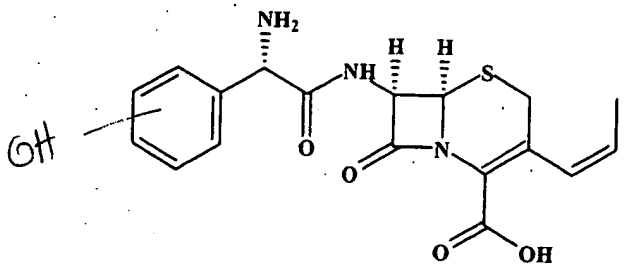
Earliest Priority Date: _____

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Bibs mtl. both of these



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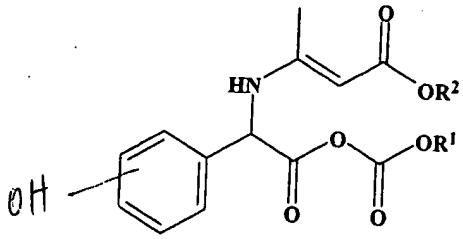

R_1 = alkyl or —O— ring be substituted

R_2 = C_{1-4} alkyl

If yonset fever from 3 mtl, permit over both of R_1, R_2 to be CH_2—O

****

STAFF USE ONLY

Point of Contact: Alexandra Waclawiw Technical Info. Specialist CM1 6A02 Tel: 308-4491

Searcher: _____

Searcher Phone #: _____

Searcher Location: _____

Date Searcher Picked Up: 2-14

Date Completed: 2-14

Searcher Prep & Review Time: 15

Online Time: 44

Type of Search

_____ NA Sequence (#)

_____ AA Sequence (#)

1 Structure (#)

_____ Bibliographic

_____ Litigation

_____ Fulltext

_____ Other

Vendors and cost where applicable

243 STN _____ Dialog 1-19

_____ Questel/Orbit _____ Lexis/Nexis

_____ Westlaw _____ WWW/Internet 1-29

___ In-house sequence systems

___ Commercial ___ Oligomer ___ Score/Length

___ Interference ___ SPDI ___ Encode/Transl

_____ Other (specify)

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L3       87816 SEA ABB=ON  PLU=ON  191.74/RID
L4          11 SEA ABB=ON  PLU=ON  L2 NOT L3
L5          42 SEA ABB=ON  PLU=ON  L2 NOT L4
L6           0 SEA ABB=ON  PLU=ON  L4 AND L5

     FILE 'CAPLUS' ENTERED AT 13:06:58 ON 14 FEB 2006
L7         347 SEA ABB=ON  PLU=ON  L5
L8          13 SEA ABB=ON  PLU=ON  L4
L9           2 SEA ABB=ON  PLU=ON  L7 AND L8

     FILE 'MARPAT' ENTERED AT 13:07:33 ON 14 FEB 2006
L10          1 SEA SSS SAM L1
               D SCAN

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L1             STR
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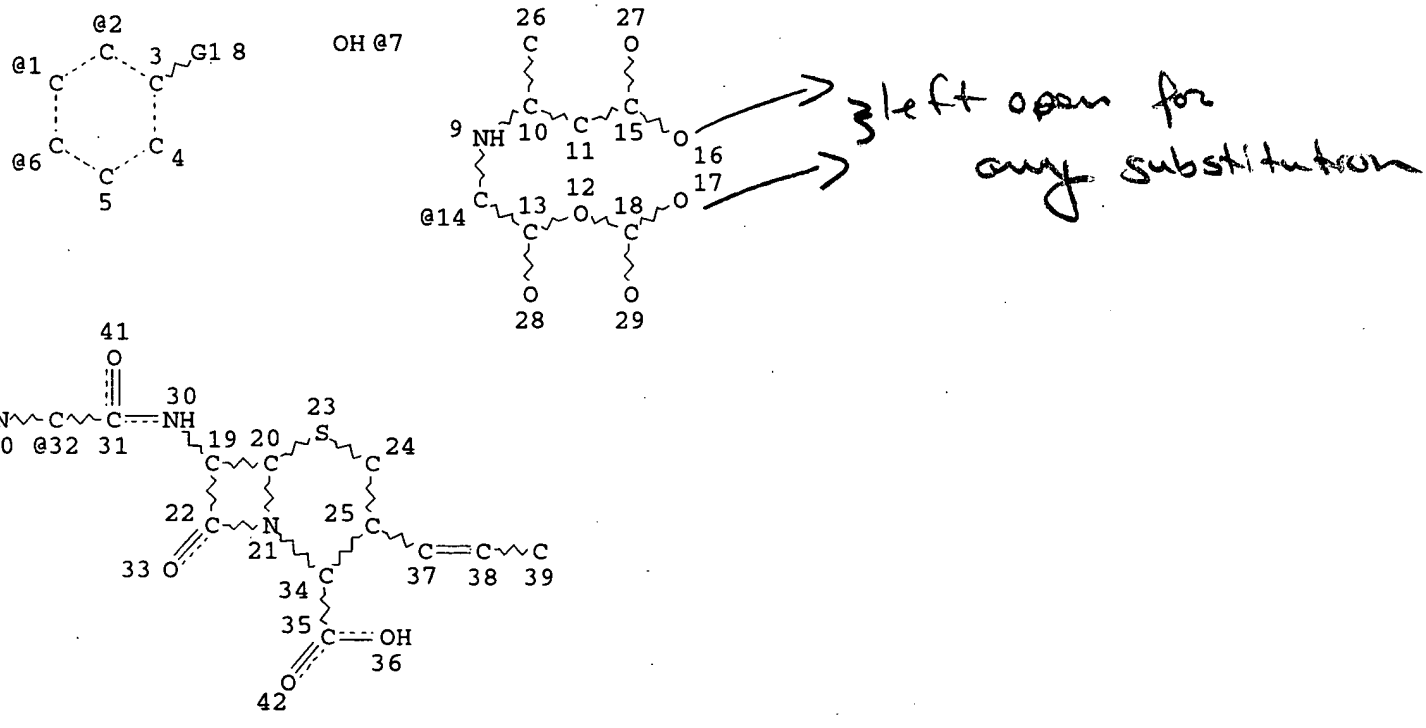

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VPA 7-2/1/6 U
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CONNECT IS E3 RC AT 20
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE
L2 53 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 5636 ITERATIONS 53 ANSWERS
SEARCH TIME: 00.00.01

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FILE COVERS 1907 - 14 Feb 2006  VOL 144 ISS 8
FILE LAST UPDATED: 13 Feb 2006  (20060213/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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L1              STR
L2           53 SEA FILE=REGISTRY SSS FUL L1
L3        87816 SEA FILE=REGISTRY ABB=ON  PLU=ON  191.74/RID
L4           11 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 NOT L3
L5           42 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 NOT L4
L7          347 SEA FILE=CAPLUS ABB=ON  PLU=ON  L5
L8           13 SEA FILE=CAPLUS ABB=ON  PLU=ON  L4
L9            2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 AND L8


=> d .ca hitstr 19 1-2

L9   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2005:450973  CAPLUS
DOCUMENT NUMBER:          142:481876
TITLE:                    Process for preparation of 7-[α-amino(4-
                          hydroxyphenyl)acetamido]-3-substituted-3-cephem-4-
                          carboxylic acid
INVENTOR(S):              Tyagi, Om Dutt; Rane, Dnyandev Ragho; Srivastava,
                          Tushar Kumar; Sirsath, Krishnarao Tukaram
PATENT ASSIGNEE(S):       Lupin Ltd., India
SOURCE:                   U.S. Pat. Appl. Publ., 12 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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     US 2005113570        A1    20050526    US 2004-801443         20040315
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This work

PRIORITY APPLN. INFO.: IN 2003-MU1031 A 20030310
OTHER SOURCE(S): CASREACT 142:481876; MARPAT 142:481876
ED Entered STN: 27 May 2005
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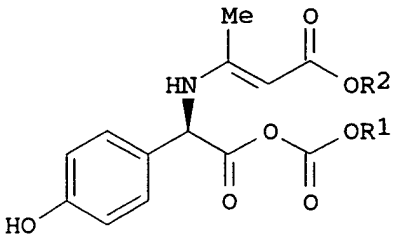

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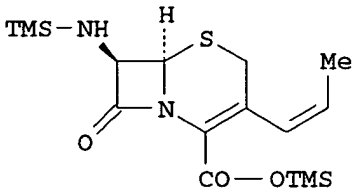
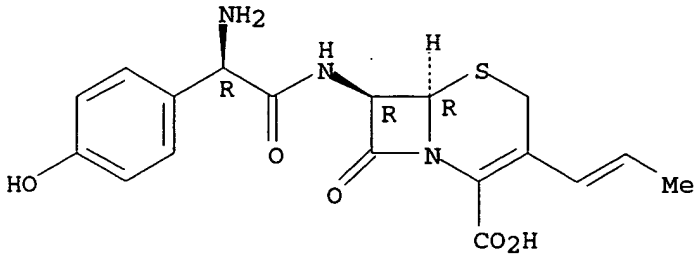


II

AB A process is described for the preparation of 7-[D-α-amino-α-(4-hydroxyphenyl)acetamido]-3-(1-propen-1-yl)-3-cephem-4-carboxylic acid (Cefprozil) in high yield and high purity, substantially free of impurities, which comprises preparation of mixed acid anhydride I (R1 = alkyl, aryl; R2 = Me, Et) by selecting the sequence and temperature of addition of the reagents and its subsequent condensation with a protected 7-APCA, followed by hydrolysis, isolation and purification to give Cefprozil in the form of a monohydrate. Thus, I (R1 = Et, R2 Me) was prepared from Et chloroformate with N-methylmorpholine and the potassium phenylacetate derivative, then condensed with II (preparation given), followed by HCl hydrolysis to give Cefprozil monohydrate.

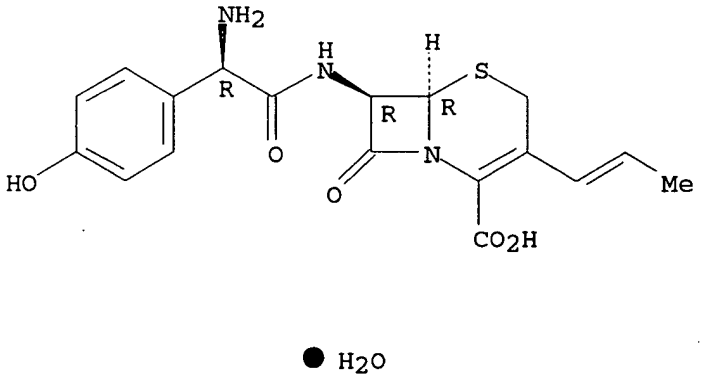
IC ICM C07D501-00
INCL 540217000
CC 26-5 (Biomolecules and Their Synthetic Analogs)
IT **92665-29-7P**, Cefprozil **121123-17-9P**, Cefprozil monohydrate
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of Cefprozil via condensation of mixed anhydride with disilylated 7-APCA followed by hydrolysis)
IT **78858-51-2P** 851983-02-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of Cefprozil via condensation of mixed anhydride with disilylated 7-APCA followed by hydrolysis)
IT **92665-29-7P**, Cefprozil **121123-17-9P**, Cefprozil monohydrate
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of Cefprozil via condensation of mixed anhydride with disilylated 7-APCA followed by hydrolysis)
RN 92665-29-7 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2R)-amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-(1-propenyl)-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 121123-17-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2R)-amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-(1-propenyl)-, monohydrate, (6R,7R)- (9CI) (CA INDEX NAME)

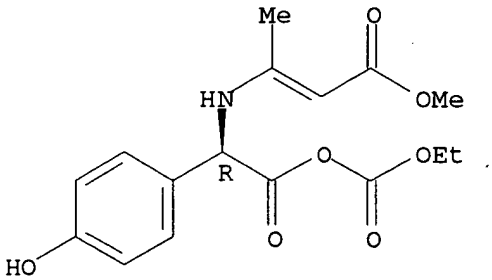
Absolute stereochemistry.
Double bond geometry unknown.



● H_2O

IT **78858-51-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of Cefprozil via condensation of mixed anhydride with disilylated 7-APCA followed by hydrolysis)
RN 78858-51-2 CAPLUS
CN Benzeneacetic acid, 4-hydroxy-α-[(3-methoxy-1-methyl-3-oxo-1-propenyl)amino]-, anhydride with ethyl hydrogen carbonate, (αR)- (9CI) (CA INDEX NAME)

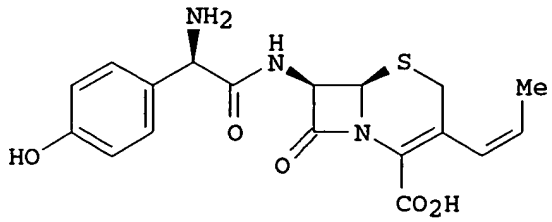
Absolute stereochemistry.
Double bond geometry unknown.



L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:372931 CAPLUS
DOCUMENT NUMBER: 140:391158
TITLE: Process for preparing 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate
INVENTOR(S): Deshpande, Pandurang Balwant; Khadangale, Bhausaheb Pandharinath; Gurusamy, Kumar; Konda, Ramesh Athmaram
PATENT ASSIGNEE(S): Orchid Chemicals & Pharmaceuticals Limited, India
SOURCE: U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004087786	A1	20040506	US 2002-315010	20021210
US 6903211	B2	20050607		
WO 2004039812	A1	20040513	WO 2002-IB5459	20021218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1562957	A1	20050817	EP 2002-788375	20021218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: IN 2002-MA800 A 20021030
WO 2002-IB5459 W 20021218
OTHER SOURCE(S): CASREACT 140:391158; MARPAT 140:391158
ED Entered STN: 07 May 2004
GI



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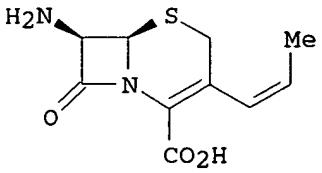

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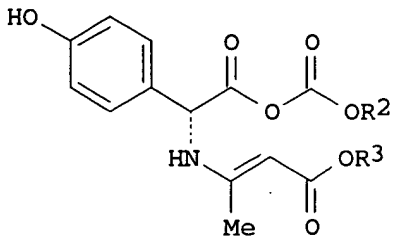


IV

AB The present invention relates to an improved process for the preparation of 3-propenyl cephalosporin (I) DMF solvate (II), more particularly, the present invention relates to an improved process for the preparation of cefprozil DMF solvate, which is useful for the preparation of cefprozil. Thus, 7-APCA (III) prepared from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate via a multistep synthetic sequence, was silylated with Me3SiCl and (Me3Si)2NHin CH2Cl2 and reacted with (-)-D-(p-hydroxyphenyl)glycine Dane salt IV (R2 = alkyl, Ph, CH2Ph, cycloalkyl; R3 = Me, Et, CHMe2), in the presence of a halogenated solvent and solvation with DMF, afforded II. II was desolvated with water to provide cis-cefprozil I.

IC ICM C07D501-12

INCL 540217000

CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 7

IT **114876-74-3P** 685836-16-2P
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

IT **114876-72-1P 121412-77-9P**
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

IT 119608-72-9P 120635-31-6P 190790-65-9P 685836-15-1P
685836-17-3P 685836-20-8P 685836-21-9P 685836-22-0P
685836-23-1P 685836-24-2P 685836-25-3P 685836-26-4P 685836-27-5P
685836-28-6P 685836-29-7P 685836-30-0P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

IT **114876-74-3P**
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP

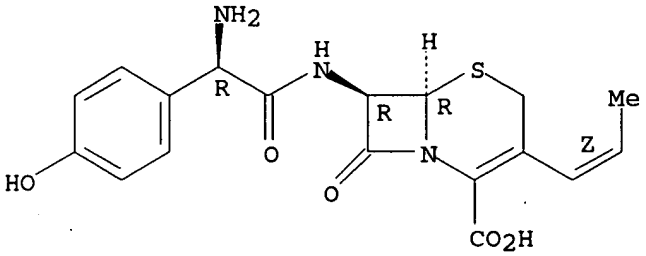
(Preparation); RACT (Reactant or reagent)
(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

RN 114876-74-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2R)-amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-(1Z)-1-propenyl-, (6R,7R)-, compd. with N,N-dimethylformamide (9CI) (CA INDEX NAME)

CM 1

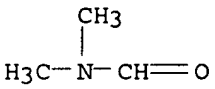
CRN 121412-77-9
CMF C18 H19 N3 O5 S

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

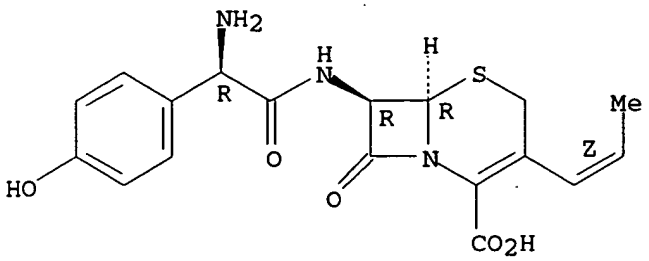
CRN 68-12-2
CMF C3 H7 N O



IT **114876-72-1P 121412-77-9P**
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

RN 114876-72-1 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2R)-amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-(1Z)-1-propenyl-, monohydrate, (6R,7R)- (9CI) (CA INDEX NAME)

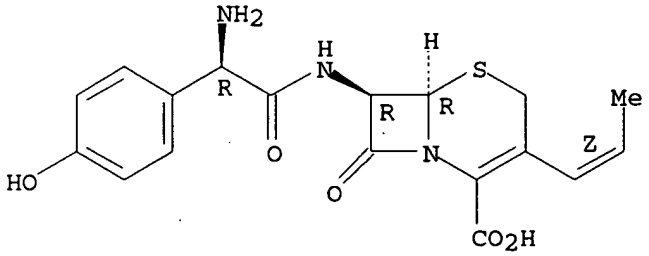
Absolute stereochemistry.
Double bond geometry as shown.



● H_2O

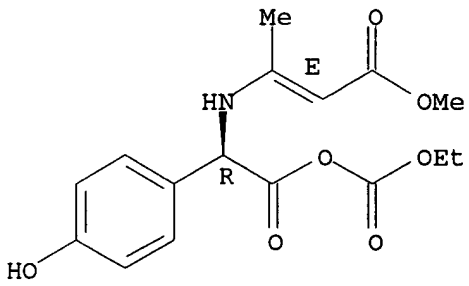
RN 121412-77-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2R)-amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-(1Z)-1-propenyl-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **685836-17-3P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)
RN 685836-17-3 CAPLUS
CN Benzeneacetic acid, 4-hydroxy-α-[[(1E)-3-methoxy-1-methyl-3-oxo-1-propenyl]amino]-, anhydride with ethyl hydrogen carbonate, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



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FILE CONTENT: 1969-PRESENT (VOL 144 ISS 7 (20060210/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1969-1987

MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US    6965040 15 NOV 2005
DE 1020040544 17 NOV 2005
EP    1600439 30 NOV 2005
JP 2005340161 08 DEC 2005
WO 2006003494 06 JAN 2006

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

=> d que nos l10
L1             STR
L10            1 SEA FILE=MARPAT SSS SAM L1


=> d all l10 1

L10  ANSWER 1 OF 1  MARPAT  COPYRIGHT 2006 ACS on STN
AN   128:166425  MARPAT
TI   Synthesis of β-lactam antibacterials using soluble side chain esters
     and enzyme acylase
IN   Usher, John J.; Romancik, Guna
PA   Bristol-Myers Squibb Company, USA
SO   PCT Int. Appl., 15 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  C12P037-00
     ICS  C12P037-02; C12P035-00; C12N015-00
CC   16-2 (Fermentation and Bioindustrial Chemistry)
FAN.CNT 1
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
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PI   WO 9804732         A1   19980205      WO 1997-US12181  19970715
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             LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG,
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             GN, ML, MR, NE, SN, TD, TG
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     AU 9737264         A1   19980220      AU 1997-37264    19970715
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	AU 727543	B2	20001214		
	EP 920527	A1	19990609	EP 1997-934136	19970715
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2000516215	T2	20001205	JP 1998-508841	19970715
	IL 126329	A1	20020210	IL 1997-126329	19970715
	US 5922907	A	19990713	US 1997-895640	19970717
	US 6156534	A	20001205	US 1998-177689	19981022
	KR 2000029604	A	20000525	KR 1999-700668	19990126
	AU 766148	B2	20031009	AU 2001-23037	20010216
	AU 2001023037	A5	20010719		
	US 2003044884	A1	20030306	US 2002-264801	20021004
PRAI	US 1996-22622P	19960726			
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	US 1997-895640	19970717			
	US 2000-686724	20001011			

AB Disclosed is a process for the synthesis of β-lactam antibacterials using soluble side chain esters in the presence of enzyme acylase. Also disclosed are novel esters useful as reactants in said process. Manufacture of cefprozil with immobilized recombinant penicillin G amidase using hydroxyethyl ester of 4-hydroxy-D-phenylglycine as the acyl donor was shown.

ST beta lactam manuf acylase acyl donor

IT Fermentation
(synthesis of β-lactam antibacterials using soluble side chain esters and enzyme acylase)

IT Lactams
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(β-; synthesis of β-lactam antibacterials using soluble side chain esters and enzyme acylase)

IT 1406-05-9P, Penicillin 11111-12-9P, Cephalosporin 26787-78-0P, Amoxicillin 50370-12-2P, Cefadroxil 92665-29-7P, Cefprozil
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis of β-lactam antibacterials using soluble side chain esters and enzyme acylase)

IT 551-16-6, 6-APA 22252-43-3, 7-ADCA 203007-72-1 203007-73-2
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(synthesis of β-lactam antibacterials using soluble side chain esters and enzyme acylase)

IT 9012-56-0, Acylase 9014-06-6
RL: CAT (Catalyst use); USES (Uses)
(synthesis of β-lactam antibacterials using soluble side chain esters and enzyme acylase)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

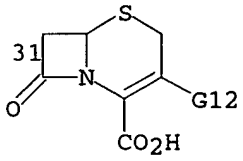
RE

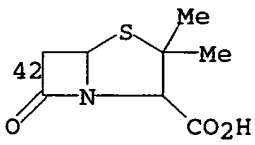
(1) Fernandez-Lafuente; Enzyme and Microbial Technology 1996, V19, P9 CAPLUS
(2) Gistbrocardes B V; WO 9602663 A1 1996 CAPLUS
(3) I B S A Institut Biochimique S A; CH 640240 1983 CAPLUS
(4) Novo Nordisk AS; WO 9201061 A1 1992 CAPLUS
(5) Novo Nordisk AS; WO 9312250 A1 1993 CAPLUS
(6) Novo Nordisk AS; WO 9323164 A1 1993 CAPLUS

MSTR 1

G11—NH_2

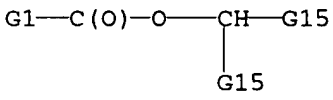
G11 = 31 / 42



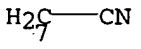


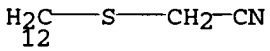
G12 = H / halo / alkyl <containing 1-3 C>
(opt. substd. by 1 or more halo) /
alkenyl <containing 2-4 C> / R <"nucleophilic group"> /
alkyl <containing 1-3 C> (substd. by R <"nucleophilic group">
) / (Specifically claimed: CH=CHMe / Me)
Patent location: claim 1

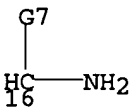
MSTR 2

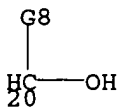


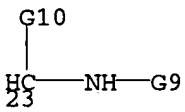
G1 = H / alkyl <containing 1 or more C>
(opt. substd. by 1 or more G2) /
cycloalkyl <containing 3-5 C> (opt. substd. by 1 or more G3)
/ alkenyl <containing 2-5 C> (opt. substd. by 1 or more G14)
/ cycloalkenyl <containing 3-5 C>
(opt. substd. by 1 or more G3) / 7 / 12 / 16 / 20 / 23 / 27 /
(Specifically claimed: 53 / 62)

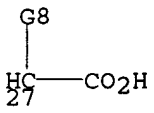


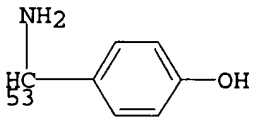


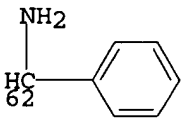






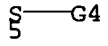




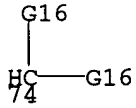


G2 = cycloalkyl <containing 3-5 C>
(opt. substd. by 1 or more G13) /
cycloalkenyl <containing 3-5 C>
(opt. substd. by 1 or more G13) /
aryl <monocyclic> (opt. substd. by 1 or more G13) /
aryloxy <monocyclic> (opt. substd. by 1 or more G13) /
heterocycle <containing zero or more O, zero or more N,
zero or more S> (opt. substd. by 1 or more G13) / 5 /

arylsulfonyl (opt. substd. by 1 or more G13) / loweralkyl / CH2NH2 / halo / OH / loweralkanoyloxy / loweralkoxy

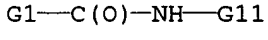


G3 = alkyl <containing 1-5 C> / alkenyl <containing 2-5 C> / loweralkyl / CH2NH2 / halo / OH / loweralkanoyloxy / loweralkoxy
G4 = heterocycle <containing zero or more O, zero or more N, zero or more S> (opt. substd. by 1 or more G13)
G7 = aryl <monocyclic> (opt. substd. by 1 or more G13) / cycloalkenyl <monocyclic> (opt. substd. by 1 or more G13)
G8 = aryl <monocyclic> (opt. substd. by 1 or more G13)
G9 = acyl
G10 = aryl (opt. substd. by 1 or more G13)
G13 = loweralkyl / CH2NH2 / halo / OH / loweralkanoyloxy / loweralkoxy
G14 = cycloalkyl <containing 3-5 C> / cycloalkenyl <containing 3-5 C> / loweralkyl / CH2NH2 / halo / OH / loweralkanoyloxy / loweralkoxy
G15 = H / 74

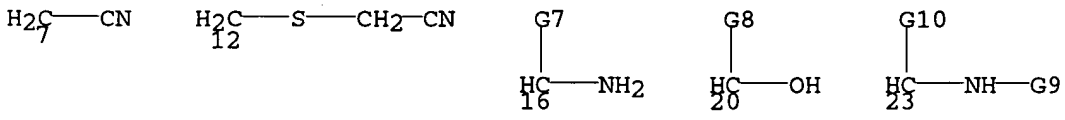


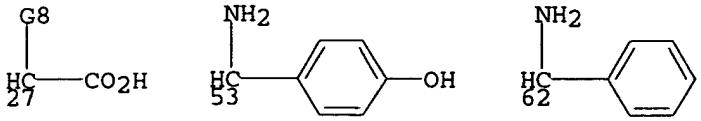
G16 = H / loweralkyl (opt. substd. by OH)
Patent location: claim 1

MSTR 3

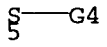


G1 = H / alkyl <containing 1 or more C> (opt. substd. by 1 or more G2) / cycloalkyl <containing 3-5 C> (opt. substd. by 1 or more G3) / alkenyl <containing 2-5 C> (opt. substd. by 1 or more G14) / cycloalkenyl <containing 3-5 C> (opt. substd. by 1 or more G3) / 7 / 12 / 16 / 20 / 23 / 27 / **(Specifically claimed: 53** / 62)

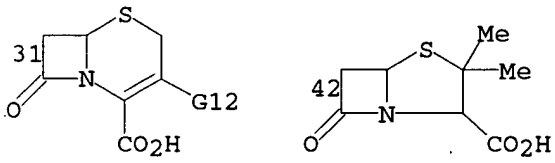




G2 = cycloalkyl <containing 3-5 C>
(opt. substd. by 1 or more G13) /
cycloalkenyl <containing 3-5 C>
(opt. substd. by 1 or more G13) /
aryl <monocyclic> (opt. substd. by 1 or more G13) /
aryloxy <monocyclic> (opt. substd. by 1 or more G13) /
heterocycle <containing zero or more O, zero or more N,
zero or more S> (opt. substd. by 1 or more G13) / 5 /
arylsulfonyl (opt. substd. by 1 or more G13) / loweralkyl /
CH2NH2 / halo / OH / loweralkanoyloxy / loweralkoxy



G3 = alkyl <containing 1-5 C> /
alkenyl <containing 2-5 C> / loweralkyl / CH2NH2 / halo /
OH / loweralkanoyloxy / loweralkoxy
G4 = heterocycle <containing zero or more O,
zero or more N, zero or more S>
(opt. substd. by 1 or more G13)
G7 = aryl <monocyclic> (opt. substd. by 1 or more G13) /
cycloalkenyl <monocyclic> (opt. substd. by 1 or more G13)
G8 = aryl <monocyclic> (opt. substd. by 1 or more G13)
G9 = acyl
G10 = aryl (opt. substd. by 1 or more G13)
G11 = **31** / 42



G12 = H / halo / alkyl <containing 1-3 C>
(opt. substd. by 1 or more halo) /
alkenyl <containing 2-4 C> / R <"nucleophilic group"> /
alkyl <containing 1-3 C> (substd. by R <"nucleophilic group">
) / **(Specifically claimed: CH=CHMe** / Me)
G13 = loweralkyl / CH2NH2 / halo / OH / loweralkanoyloxy /
loweralkoxy
G14 = cycloalkyl <containing 3-5 C> /
cycloalkenyl <containing 3-5 C> / loweralkyl / CH2NH2 /
halo / OH / loweralkanoyloxy / loweralkoxy
Patent location: claim 1

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